California GARDEN

MAY–JUNE 1989
One Dollar
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80th Anniversary

1909–1989

The Past Recaptured

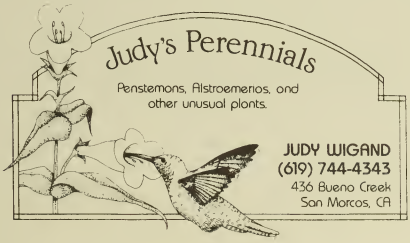
By Spencer Church and Donald Boyer

This is the second in a series concerning the offering of a scholarship fund known as the "Roland and Ethel Hoyt Fund" for local college students enrolled in horticultural programs.

The San Diego Floral Association (SDFA), administrator of the memorial fund, is extending the Hoyt funding to all higher education units in San Diego County. College officials (counselors) are asked to prescreen the applicants for second year Horticultural Sciences, with a minimum of 3.0 grade average, appropriate work experience, and references, plus standard scholarship resume application.

PROCEDURAL OUTLINE

February 10 1989
Announcement of the expansion of the Hoyt Memorial Scholarship Fund to entire San Diego County, published in California Garden.
April 14, 1989
San Diego Floral Association will send covering directions regarding the application for funds to college officials (counselors).
May 12, 1989
Applications for the scholarship will be sent to:
The Hoyt Scholarship Committee
San Diego Floral Association
Casa del Prado, Balboa Park
San Diego, CA 92101-1619
Telephone: (619) 232-5762
Preliminary review of applications by committee.
June 9, 1989
Final review of applications, and decision by San Diego Floral Association.
June 13, 1989
Announcement of scholarship winners at San Diego Floral Association general meeting.
July 14, 1989
Awarding of scholarship.



BEVERLY ALBRITTON KULOT

July 17, 1907 - March 4, 1989

By Barbara S. Jones

When one thinks of Beverly Kulot, one thinks of flowers.

She was born in Tennessee, but was reared in Washington, D.C. Both her mother and grandmother were trained artists who specialized in painting flowers. She was taught by them and later studied art at the Corcoran Gallery. She became a specialist in restoring antique paintings and painted china.

She began gardening when she moved to San Diego in 1954, and later became a serious flower arranger. She delighted in flower shows, and was a top prize-winner in both the artistic and horticulture sections. She grew all her own arranging material,and generously shared it with others who were not such accomplished gardeners.

She developed an interest in dried arrangements, and became an expert on drying. Her pictures made of dried flowers are treasures. She willingly taught others, always as an un-paid volunteer. She started the weekly Floral workshops.

She illustrated articles and drew covers for California Garden until she was unable to control her hands.

She held offices, chaired committees, and was the president of the Floral Association for two years. In 1986, she was voted an Honorary Life Member for her many (too numerous to mention) contributions to the San Diego Floral Association.

Anyone who knew Beverly was enriched by that experience. We miss her.

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San Diego Floral Association
for 80 Years

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COVER

REVA KERN IS A FREE-LANCE ILLUSTRATOR LIVING IN AGOURA, CA WHO ENJOYS TENDING HER ENGLISH GARDEN. SHE ALSO WRITES AND ILLUSTRATES A MONTHLY COLUMN ENTITLED "PLANT OF THE MONTH" FOR A LOCAL NEWSPAPER, "THE ACORN".

Various organizations submit listings of horticultural events for our Horticultural Calendar in California Garden, several weeks ahead. Changes can occur, and there is no way we can inform you of changes. We cannot be responsible if the event is cancelled, or if they do not have what it lists available at the show or sale. We welcome listings of events and cannot always guarantee that they will be published. It depends on date received and availability of space.

The Club Affiliate Members listing includes information received. If it is not correct, or if changes occur, notify California Garden editor immediately. We strive to be accurate.

In the next issue (July—August 1989), we publish a Free listing of garden clubs which are not affiliated with San Diego Floral Association. If you want your club to be listed FREE, submit the name of the club, name, address, and phone number of the President of the Club, and time, day of month and meeting place, to Editor, California Garden no later than May 10, 1989.

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HORTICULTURE CALENDAR

*San Diego Floral Association Event

***CONTEMPORARY FLOWER ARRANGING CLASSES AND BASKETRY CLASSES** SPONSORED BY San Diego Floral Association are being scheduled this year. Call Marie Walsh, (619) 292-5182 to get on her mailing list for schedules, if interested in attending.

***FREE FLORAL CRAFTS INSTRUCTION WORKSHOP** each Thursday 10-2 p.m. in San Diego Floral Library, Room 105, Casa del Prado, Balboa Park. If you are creative, and wish to participate, come each Thursday to Floral Office. Info: 232-5762.

OFFSHOOTOURS SPONSORS FREE plant walk of Balboa Park each Saturday. Meet at 10 a.m. in front of Botanical Lath House by the lily pond. No reservations required.

OFFSHOOTOURS SPONSORS FREE 2-hour walking botanical tour of the Zoo the last Sunday of each month beginning at 9:30 a.m. Free with paid admission or zoo membership. Reservations required in advance as space is limited to 25 peope. Call Dale Ward at (619) 297-0289.

BRUCE ASAKAWA AND GARDEN LINE TALK SHOW - Sat. and Sun. Radio AM XTRA 690. 8-10 a.m.

"READY, SET, GROW" - TV Open House with Tineke Wilders. Sun. 10:30 a.m. KGTV Channel 10 ABC. 13 weeks of gardening tips.

RANCHO SANTA ANA BOTANIC GARDEN TOURS FREE. Sundays 2 p.m. until May 27th. Meet at pedestrian gate in visitor's parking lot before 2 p.m. 1500 N. College in Claremont. (714) 625-8767.

***APRIL 18**

San Diego Floral Association Meeting, Casa del Prado, Room 101, Balboa Park. 10 a.m. Meeting with Angus Graham, President of the California Hibiscus Society and President of the West Coast Chapter of the Hibiscus Society, demonstrating grafting of root stock, and giving many hints about the care and cultivation of hibiscus. Mr. Graham lives in Bonsall, and has imported many of his hibiscus collection from other areas of the world. Meeting will be followed by a salad potluck luncheon at noon.

***APRIL 18**

Basketry class with Martha Rosenberg at Casa del Prado, Balboa Park. 9:30-2:30 p.m. Bring sack lunch. Reservations (619) 298-5182.

***APRIL 20-30**

San Bernardino 74th Annual National Orange Show (off Hwy 215). Info: (714) 383-5444.

APRIL 22-23

San Joaquin County Asparagus Festival, Stockton. (209) 943-1987.

APRIL 22-23

San Diego Bonsai Club's 20th Annual Show. Room 101, Casa del Prado, Balboa Park. 11-5 p.m. Free.

APRIL 22-23

Fallbrook Garden Club's 58th Annual Standard Flower Show, "A Garden Party". Bower's Auditorium, Potter Jr. High School, 1743 Recha Road, Fallbrook. Public invited to enter show. Free. Info: (619) 723-9179.

April 22-23

Pacific Rose Society's 52nd Annual Rose Show in Ayers Hall, LA State and County Arboretum, Arcadia. Sat: 1-4:30 p.m., Sun: 9-4:30 p.m. Amateurs may enter. Sale at 9 a.m. both days. Info: (818)447-4513.

April 23

South Bay Epiphyllum Society's Show, South Coast Botanic Garden, Palos Verdes Peninsula 10-4 p.m. Cuttings and rooted plants for sale.

***April 25**

Basic Flower Arranging Class with Velma West. Room 101, Casa del Prado, Balboa Park. Reservations: (619) 298-5182.

April 27

Spring Gardens on Tour sponsored by Lake Hodges Native Plant Club in Rancho Bernardo area. Profits to benefit California Nativescapes at the Wild Animal Park. 4 Gardens on tour from 10-3 p.m. Tour $7.50 ticket can be purchased from any club member or by contacting Pat Sigg (619) 487-2629.

April 29, 30

Standard Flower Show "Floral Safari" and plant sale by Vista Garden Club at Brengle Park Recreation Center, 1200 Vale Terrace, Vista. Sat: 1:30-5 p.m.; Sun: 10-4 p.m. Free. Info: (619) 724-5032.

April 29-30

San Diego Imperial County Iris Society's 24th Show, Room 101 Casa del Prado, Balboa Park. Sat: 12:30-5 p.m.; Sun: 11-5 p.m. Free.

April 29-30

Dos Valles Garden Club's 10th Standard Flower Show, "It Happens Every Spring". Valley Center Community Church, 29105 Valley Center Road, Valley Center. Sat: 1-5 p.m.; Sun: 1-4 p.m. Public invited. Admission and parking free.

April 29-30

Bonsai Show. The Descanso Bonsai Society will present their first annual indoor show. Descanso Gardens, La Canada Flintridge. 9-4:30 p.m.

April 30

Spring Concert in the Garden at South Coast Botanic Garden, Palos Verdes Peninsula, 2 p.m. The 50 member Palos Verdes Symphonic Band will play classical music under the direction of Richard Schwalbe.

April 30

Epiphyllum Society of America's 30th Annual Flower Show in Ayers Hall, State and County Arboretum, Arcadia. show 11-4:30 p.m. Plant and cutting sale begins at 9 a.m. Info: (818) 447-4513.

May 2-8

Journey Into Spring: Gardens of Philadelphia and the Brandywine Valley sponsored by the Santa Barbara Botanic Garden. Reservations: (805) 563-2521.

May 2-8
Journey Into Spring: Gardens of Philadelphia and the Brandywine Valley sponsored by the Santa Barbara Botanic Garden. Reservations: (805) 563-2521.
May 5-June 1
Jackie Carty and Charleen Andrews display their art works and clay and wood sculptures at Descanso Gardens, La Canada, Flintridge. 9 a.m.-4 p.m.
May 5-7
Hydroponic Society of America's 10th Annual Conference and Trade Show at Airport Holiday Inn, Tucson, Arizona. Tour of Biosphere II, Bach's Cactus Nursery and the Environmental Research Labs at the University of Arizona. Many prominent speakers will speak on a variety of topics. Attendance open to general public. Info: Mr. Gene Brisbon, Executive Director, P.O. Box 6067, Concord, CA 95424 (415) 682-4193.
May 6
Imperial Sweet Onion Festival at the California Midwinter Fairgrounds, Imperial. (619) 353-1900.
May 6-7
Southwest Branch IGS Annual Geranium Show and Sale in the new Community Building. Plummer Park, 7377 Santa Monica Blvd., West Hollywood. 10-4:30 p.m.
May 6-7 The South Coast Rose Society's Rose Show at South Coast Botanic Garden, Palos Verdes Peninsula. Miniature roses and rose arrangements for sale. Sat: 1-5 p.m.; Sun: 10-4 p.m.
May 6-7
Raisin Festival commemorates the first planting of the grapes; includes a parade, raisin tray-turning, raisin-baking contests, booths in Fresno county. (209) 896-3315.
May 6-7
Bromeliad Study Group of Balboa Park's Annual Show and Sale, Room 101 Casa del Prado, Balboa Park. Sat: 10-5 p.m.; Sun: 10-4 p.m. Proceeds from sale to be used for Bromeliad Garden at San Diego Zoo. Colorful varieties available for sale. Experts available to answer questions. Free.
May 7
Baldwin Bonanza. The 19th Annual Benefit Plant Sale sponsored by the California Arboretum Foundation in support of the Los Angeles State and County Arboretum. Los Angeles State and County Arboretum, Arcadia. 9-4:30 p.m.
May 7
Quail Botanical Gardens Foundation's Annual Fun and Funds Festival at Quail Botanical Gardens, 230 Quail Gardens Drive, Encinitas from 10-4 p.m. On sale will be a wide assortment of plants, handcrafted items, jams, jellies, vinegars, and fancy breads. Free admission.
May 13
Riverside County King Korn Karnival Celebration of the harvest of sweet corn in the Coachella Valley. (619) 398-5111.
May 13
California Rare Fruit Growers sale in courtyard, Casa del Prado, Balboa Park.
May 13
Botany for Breakfast "Xeriscape" (Drought Resistant Gardening) by Mike Masterson at the Wild Animal Park. Reservations (619) 231-1414 ext. 4412. Fee $12.50 plus admission to Wild Animal Park.
May 13-14
Spring Plant Sale at University of California Botanical Garden, Berkeley. Members only preview sale 9-noon Sat. Public sale 12-2 p.m. Sat and 10-2 p.m. Sun. Unusual hard-to-find trees, shrubs, perennials, herbs, houseplants, and California natives.
May 13-14
Los Angeles Branch of the International Geranium Society's Annual Flower Show "Geranium Festival" at Los Angeles State and County Arboretum, Arcadia. Sat: noon - 4 p.m.; Sun: 10-4 p.m.
May 13-14
San Fernando Bromeliad Society's Bromeliad Show at Descanso Gardens, La Canada, Flintridge. Bromeliads for sale. Lectures both days. 9-4:30 p.m.
May 14
San Diego Epiphyllum Society's 19th Annual Mother's Day Show and Sale, theme "Sunday in the Garden". Casa del Prado Room 101, Balboa Park. 11-5 p.m. Free.
May 19 and May 21
Wildflower photography. Multi-projector slide lecture Fri. at Strybing Auditorium. Sunday workshop with film donated by Kodak to be processed during the day for immediate review. University of California, Berkeley. $25 members; $30 non-members. 642-3343.
May 20-21
South Coast Botanic Garden Foundation's 27th Annual Plant Sale, "Fiesta de Flores". South Coast Botanic Garden, Palos Verdes Peninsula. 9-4:30 p.m.
May 20-21
Los Angeles Rose Society's 9th All Miniature Rose Show and Sale honoring Harm Saville, a miniature rose hybridizer. Sat: 2 p.m. lecture. Sat: 1-4:30 p.m.; Sun: 9-4:30 p.m. Descanso Gardens, La Canada Flintridge.
May 20-21
The Valley Satsuki Azalea Society's Japanese Azalea Show and Sale. Planting techniques demonstrated at 11, 1 and 3 p.m. each day. Los Angeles State and County Arboretum, Arcadia. 9-4:30 p.m.
May 20-21
San Diego Geranium Society's 17th Annual Show and Sale. Room 101, Casa del Prado, Balboa Park. Sat: sale opens at 10 a.m., show starts at 11-5 p.m. Sun: 11-5 p.m. Free.
May 20-21
Ventura County Strawberry Festival at Channel Islands Harbor, Oxnard. Gourmet strawberry delights, arts and crafts exhibits (805) 984-4715.
May 20-21
Kern County Potato and Cotton Festival, Shafter. (805) 746-2600.
May 27-28
San Luis Obispo County Strawberry Festival, Arroya

Grande. (805) 489-1488.

May 27-28

Glendale Chrysanthemum Society's Chrysanthemum Sale at Descanso Gardens, La Canada Flintridge. 9-4 p.m. Cymbidiums, epiphyllum, ferns and house plants also for sale.

May 27-28

Santa Clara County Mushroom Mardi Gras at Morgan Hill. A tribute to the mushroom industry features games, crafts, and food galore. (408) 779-7283.

May 27-28

Orange County Cactus and Succulent Society's 13th Annual Show and Plant Sale at the Yorba Linda District Library, 18262 Lemon Drive, Yorba Linda. Show 12-4 p.m. Sat. and 9-4 p.m. Sun. Plant sale 9-4 p.m. Free. Show is open to all. Memberships invited. Meet 4th Thurs. at Yorba Linda Library.

May 27-28

Heartland African Violet Society's 8th Show and Sale at Casa del Prado, Balboa Park. Sat: 1-5 p.m.; Sun: 11-5 p.m. Free.

May 27-29

The Santa Anita Bonsai Society's Silver Anniversary Show and Sale at Los Angeles State and County Arboretum, Arcadia. 9 a.m.-4:30 p.m. Demonstrations at 11 a.m. and 2:30 p.m.

May 28

Musical slide program with commentary at South Coast Botanic Garden on billbergia and bromeliads which will be on display and for sale. 26300 South Crenshaw Blvd., Palos Verdes Peninsula 2 p.m.

May 28

La Canada Flintridge Chamber of Commerce will present "Sunday on the Green" at Descanso Gardens, La Canada Flintridge. Entertainment includes dancers, singers, gymnasts and theater performers. 2:30 p.m.

June 1

Daylilies for Summer Days talk by James Folsom, curator of the Botanical Gardens with sale of daylilies included. The Huntington Garden Terrace, 1151 Oxford Road, San Marino. 2:30 p.m.

June 2-July 6

California landscapes will be the focus of Ben Avril's show in the hospitality house at Descanso Gardens 9-4 p.m. Cactus propagation. Demonstration of vegetative and seed propagation as well as grafting techniques for cacti and succulents with Fred Dortort and Kurt Zadnik. University of California, Berkeley. 10-2 p.m. $12members; $15 non-members. Info: 642-3343.

June 3

Shasta County Happy Valley Strawberry Social Anderson. (916) 357-2657.

June 3-4

Stanislaus County Apricot Festival Fair. Patterson. (209) 892-2821.

June 3-4

National Fuchsia Society's Show and Sale at Descanso Gardens, La Canada Flintridge. 9-4:30 p.m.

June 3-4

Alameda County Cherry Festival San Leandro. (415) 577-3471.

June 3-4

Satsuki Azalea Bonsai Show at Huntington Garden Terrace, San Marino. 1-4:30 p.m. Reservations are required on Sunday only. (818) 405-2141.

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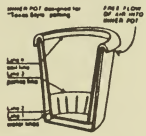

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Retail List Available

June 3-4
San Diego Cactus and Succulent Society's Show and Sale. Casa del Prado, Balboa Park. Sat: 1-5 p.m.; Sun: 10-5 p.m.
June 4
Botanical Interpretations. Artist Irina Gronborg's pencil drawings will be exhibited at Biota Gallery, 11740 San Vicente, Los Angeles, CA 90049. Reception Sun. June 4 3-6 p.m. Gallery hours: Tues, Wed, Thurs, 11-7 p.m., Fri., Sat. 11-8 p.m.; and by appointment. (213) 826-3494.
June 4
Scottish folk dances will be performed by 25 members of the Waverly Dancers at Descanso Gardens, La Canada Flintridge. 2:30 p.m.
June 10-11
Arts and Crafts Faire at Descanso Gardens, La Canada Flintridge. 9-4:30 p.m. Awards will be given to paintings and crafts that best depict Descanso Gardens. Anyone interested can enter. Call (818) 790-5414.
June 10-11
The Southern California Gladiolus Society's Show and Sale at Los Angeles State and County Arboretum Arcadia. Sat: 1-4:30 p.m.; Sun: 10-4:30 p.m.
June 11
Southwest Hemerocallis Society's 15th Show and Sale at Casa del Prado, Balboa Park. Noon-5 p.m. Free.
June 14-18
Riverside County Cherry Festival Beaumont. (916) 777-6031.
June 16-July 4
1989 Del Mar Fair at Del Mar Fairgrounds. Spectacular Flower and Garden Show. Theme for Fair - "The World Is Our Garden". 10 a.m.-10 p.m.
June 17
California Rare Fruit Growers' Summer Meeting open to the public at Casa del Prado, Balboa Park, Room 101. Info: (619) 453-3321.

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June 17-18
National Fuchsia Society's Show and Sale at Los Angeles State and County Arboretum, Arcadia. 9-4:30 p.m.
June 17-25
The Descanso Bonsai Society's Show and Sale at Descanso Gardens, La Canada Flintridge. 9-4:30 p.m. Demonstrations at 1 p.m. each Sat. and Sun.
June 18
Naturalist Jon Sherman will play his own music using a rhythm synthesizer, guitar and recorder at Descanso Garden, La Canada Flintridge. 2:30 p.m.
***June 20**
San Diego Floral Association Annual Meeting and Installation of Officers. Casa del Prado, Room 101, Balboa Park. Potluck at 6 p.m. followed by meeting at 7:30 p.m. Bruce Asakawa will speak and have a question and answer period. Reservations (619) 232-5762.
June 22
Troubleshooting Seminar at UC Riverside Theatre sponsored by UC Cooperative Extension. Contact Hartley Bennett, P.O. Box 414, Wickenburg, AZ 85358 (602) 684-7308 for information.
June 24-25
San Diego Fuchsia and Shade Plant Show and Sale. Casa del Prado, Room 101, Balboa Park. Free. Sat: 12-5 p.m.; Sun: 10-5 p.m.
June 24-25 and July 1-2
Alice Menard's Gardens open to the public 10-3 p.m. Admission $3.50. 13027 Mapleview Street, Lakeside (619) 443-2400.
June 25
South Bay Bonsai Association's Bonsai Demonstration by Tom Meagher and Sherwin Aminimoto at South Coast Botanic Garden, Palos Verdes Peninsula. 2 p.m.
June 25
Women from Verdugo Hills Sweet Adeline Singers will perform barbershop quartet harmony sponsored by Descanso Gardens Guild. Descanso Gardens, La Canada Flintridge. 2:30 p.m.
July 2
San Diego Dahlia Society's Specimen Show. Casa del Prado, Balboa Park. 1-4:30 p.m. Free.
July 5-8
33rd Annual Gesneriad Convention and Flower Show at the Western South Coast Plaza, 666 Anton Road, Costa Mesa, CA. Info: (714) 786-1076.
July 9
Convair Garden Club's 38th Summer Show, Casa del Prado, Balboa Park. 1-4:30 p.m. Free.
July 15-16
San Diego Bromeliad Society's 15th Annual Show and Sale. Casa del Prado, Balboa Park. Free. Sat: 1-4:30 p.m. Sun: 11-4:30 p.m.
July 22-23
San Diego County Orchid Society's 4th Summer Show and Sale at Casa del Prado, Balboa Park. Sat: 12-4:30 p.m.; Sun: 11-4:30 p.m. Free.
July 29-30
San Diego Gesneriad's 13th Annual Show and Sale. Casa del Prado, Balboa Park. Sat: 12-5 p.m.; Sun: 10-4 p.m. Free.

CUCUMBER

By the National Garden Bureau

INTRODUCTION

The Year of the Cucumber is designated by the National Garden Bureau to elevate the identity of this popular, adaptable vegetable. It is one of the top five most popular garden vegetables, and has been for seventeen years. Cucumbers are very adaptable.They have been grown in space, and a mile underground in a nickel mine. Easy to grow from seed, cucumbers deserve praise and a place in the modern garden.

HISTORY

The cucumber is a native to India, where it has been grown for almost 3000 years. Excavation at the Spirit Cave site on the Burma-Thailand frontier in 1970 uncovered seeds of cucumbers, beans, and water chestnuts that, according to radiocarbon dating, had been consumed in 9750 B.C.

Although the first wild cucumbers have never been fully identified, evidence seems to point to **C. hardwickii**, an unappetizingly small and very bitter native of the Himalayas. Bitterness, a plague to cucumber lovers throughout the ages, seems to be a natural protective device derived from its wild ancestors. **Cucurbitacins**, a terpane derivative, repels certain insects as well as some humans.

In ancient Egypt, cucumbers were cultivated as a common food and the populace savored them dipped in brine. They also drank "cucumber water" as a weak liquor. National Garden Bureau research found one Egyptian "recipe" directed the cutting of a hole in the ripe fruit, then the stirring of the insides with a stick. The hole was then plugged and the fruit buried in the earth for several days. When dug up, "the pulp converted to an agreeable liquid."

On the northern shores of the Mediterranean, the Greeks also cultivated cucumbers, calling them **sikous** (sikua, in modern Greek). However, the vegetable was not one of their favorite foods. Perhaps they viewed the cucumber as primarily water - 96% of it is. Yet it was the cucumber's water retentive ability that earned it an undisputed reputation for never losing its cool. Early caravans often carried supplies of cucumbers to slake their thirst on long journeys.

Farther west, the Romans served cucumbers raw or boiled with oil, vinegar, and honey. The Emperor Tiberius commanded cukes on his table every day. His gardeners forced hothouse cucumbers, out of season for the Royal household, in portable containers which they moved from place to place to follow the sunlight.

Later, during the 1st Century, A.D., Roman gardeners fashioned cucumber frames and covered them with glazed, translucent panes of silicates. The mica panes diffused light and the Romans used them as we now use cold frames.

The cucumber appeared in England during the reign of Henry VIII when Catherine of Aragon demanded them for her Spanish salads. By the time Elizabeth I ascended the English throne, five distinct varieties were grown; Common, Turkish, Adder, Pear and Spanish.

Cucumbers arrived in America with Columbus. He grew them in an experimental garden in 1493. In 1539, De Soto found the cucumbers grown in Florida better than those grown in Spain. By 1806

Cucumbers, like squash, produce male and female flowers. The flower on the left is female and the small fruit is easily identified behind the bloom. On the right is the male bloom which provides the pollen.
Photo courtesy of National Garden Bureau

eight varieties of cucumbers would be found growing in America's colonial gardens.

Physicians of the 17th Century prescribed placing fever patients on a bed of cucumbers so they would become "cool, as a cucumber." John Gerard wrote in The Herbal that cucumbers eaten three times a day in "otemeal porridge," would heal red noses and pimples of the face. He cautioned housewives, "those cucumbers must be chosen which are green ... for when they be ripe and yellow, they be unfit to be eaten." Sound advice even now! Dr. Samuel Johnson was reviled by cucumbers and wrote"...they should be well sliced, and dressed with pepper and vinegar, then thrown out ..."

The most famous pickled cucumber of the 19th Century was the one first preserved by H.J. Heinz of Pittsburgh. Heinz began bottling pickles in 1870 as a tasty addition to the monotonous diet of meat and potatoes eaten by most Americans. His idea was not only an instant success, it also spurred interest in cucumber hybridization.

In recent history, cucumbers were grown in space by Russian cosmonauts aboard Salut-7 during a 211 day endurance flight. Cucumbers have been cultivated successfully nearly one mile beneath the earth's surface in an Ontario nickel mine during a food project sponsored by the Canadian government.

Proving its adaptability to many climates and cultures from native India to space flights, the cucumber grows and produces. Chosen by the National Garden Bureau for special recognition, the cucumber is easily grown by beginning or expert gardeners.

NOMENCLATURE

Home gardeners refer to "cukes," but botanist term this crunch vegetable **Cucumis sativus,** a branch of the family **Cucurbitaceae.** There are over 500 cousins in this extended family, including squash, pumpkin, melon and gourds. All are characterized by trailing vines with rough, hairy leaves. Cucumbers have yellow flowers and bear fruit that may be globular, oblong or cylindrical. Most cucumbers are a dark green color and have prickly skin when immature.

CLASSIFICATION

Cucumbers are placed in two major categories, either slicing or pickling, based on use. They can be further classified by plant habit, either bush or vining. Using the knowledge of these major categories, gardeners can choose the best type of cuke for their garden.

SLICING CUCUMBERS

The majority of cucumbers fit into this category. They are to be eaten fresh from the garden. The fruit are green, elongated and slightly tapered on the ends. Depending upon variety, the mature length can be 4 to 12 inches.

Other slicing types are listed below:

Mideastern - This type originated in Israel. it differs from other cucumbers because it is burpless and has a smoother, thinner skin. This type is also called beit alpha.

Oriental - This cucumber from Asia has a crispy, sweet taste, and thin skin with some spines. It is harvested at 10 to 12 inches and often grown on trellises so that it forms straight, high quality fruit.

Fresh, homemade pickles can be more than a childhood memory. Photo courtesy of National Garden Bureau

Greenhouse - This group was primarily bred in Europe, specifically for forcing in greenhouses. Used by commercial greenhouse growers, they are not normally recommended for the home garden.

PICKLING CUCUMBERS

This class is used for preserving as pickles. Most pickling varieties are versatile, usable at

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all stages of growth. Pick cukes at 1 inch or up to 5 inches for a large dill pickle. Some varieties can be used fresh as a slicing type.

Gherkin pickles are immature pickling cucumbers. They are small, usually only an inch or two in length. They are also known for their numerous spines and warty skin.

Other types of cucumbers include Lemon and Armenian (yard long). The Lemon is a round cuke about the size of a lemon with a cream color skin. Immature fruit are suitable for pickling; mature fruit can be sliced and eaten fresh. The Armenian cucumber is actually an elongated cantaloupe, best if cooked like a summer squash, eaten fresh when immature. It produces ribbed, pale green fruit that, if left on the vine can grow to 3 feet. It is certainly a novelty; harvest at 1 foot for best eating quality.

BURPLESS, OR ARE THEY BITTER FREE?

Most cucumbers contain cucurbitacins which can be present in the fruit. If present in the fruit, some people consider the taste bitter. Associated with the bitter taste is a social, if not a digestive problem, known as a burp.

In the middle of this century, Oriental cucumbers were introduced to North America as burpless. The T. Sakata Company, members of the National Garden Bureau, introduced burpless cucumbers. The fruit was longer and narrower with thinner green skin when compared to North American slicing types. Since the bitterness was associated with the burp, the new types were described as burpless and bitter free. Both terms are used to describe the same quality in a cucumber.

Taste is most subjective. The taste of one cucumber can easily be bitter to one person and bitter free to another. To complicate matters more, a cucumber's taste can change. When grown under environmental stress such as high temperatures and inadequate water, a fruit can become increasingly bitter. Gardeners may have encountered this in cucumbers last summer. To remove most of the bitterness, cut off the 1 inch of fruit closest to the stem and peel off the skin, if necessary. Some of the newer varieties contain a gene that eliminates all bitterness from the plant and fruit so that the fruit remains bitter free even under stress.

SEX AND A CHOICE OF BLOOMERS

Some plants produce two different kinds of flowers on the same plant — male and female. This is true of squash, gourds, cukes and watermelons. The sex of the flower is important since only female flowers produce the fruit. Male flowers produce pollen. A cucumber plant might be flowering prolifically, yet not set fruit since the flowers may be all male. Gardeners are offered a choice of the male/female flowers on cucumbers they wish to grow. The choices are monoecious and gynoecious.

Monoecious cucumbers produce male and female flowers on the same plant. All open pollinated

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cultivars are monoecious. Some hybrids are monoecious. The advantage to the gardener is that the pollen and the fruit producing flowers are on the same vine. The gardener can sit back and let the bees pollinate. The disadvantage is usually a later, slower production of fruit.

Gynoecious cucumbers produce all female flowers. All flowers have the potential to bear fruit. The advantage is a higher and more concentrated yield. The disadvantage is that there must be a plant nearby which produces male flowers to pollinate the female flowers. When you choose a gynoecious cucumber, there will be pollinator seeds in the seed packet. The pollinator plants produce the pollen for the "all female" plants.

Another solution is for a gardener to plant gynoecious cucumbers that are parthenocarpic. A parthenocarpic cucumber produces only female flowers that do not need pollen to set fruit. This results in higher yields. The plants can be grown under row covers to protect them from insects and still produce. The disadvantage is that if the female flowers are pollinated, the fruit can be misshapen with a lump or curve. To minimize cross pollination, gardeners could grow only parthenocarpic plants in their garden.

Each type of cucumber has advantages and disadvantages. The choice is left for the gardener, based on his or her desired yield.

CULTURAL RECOMMENDATIONS

Cucumbers like to bask in the sun, so choosing a site in full sun is of prime consideration. Soil should be light, fertile and well-drained. Amending the soil with plenty of compost or well-rotted manure will insure good yields. Check soil drainage before planting, as a soggy garden will promote disease and cut down production.

How much space is allotted to the cucumber patch depends on the variety chosen. Standard types may spread 4 to 6 feet; grow them 4 to 5 feet apart. The restricted vines of dwarf and bush varieties require much less space; some as little as 2 square feet.

Seeds should be sown when the soil has warmed up to 70°F. Sow a seed every 6 inches, pushing it into the soil to a depth of one 1 inch. Cover with light soil or sand, firm well and keep moist. Seedlings should emerge in about a week. When the plants are 2 inches high, thin them to 1 foot apart. An alternative method is to plant in a series of hills, 4 to 5 feet apart. A hill is simply a mound of soil 1 foot in diameter. Start by sowing four or five seeds, then thin to three per hill.

In short summer areas, gardeners may wish to get a jump on the season by starting cucumbers indoors. Plant seeds in individual peat pots or a similar container about two to three weeks before the last frost. Harden the seedlings off for several days before planting out in the garden.

Cucumbers are among the thirstiest of vegetables. The National Garden Bureau recommends long, deep waterings rather than frequent sprinklings. Mulching will repay the gardener's efforts threefold. Moisture is conserved, soil temperature remains uniform and weed growth is deterred. Once the seedlings have grown a few inches, put down a 3 to 4 inch layer of organic mulch or cover. Cucumbers are heavy feeders. A side dressing of 5-10-10 fertilizer at the time of planting and once a month thereafter is sufficient.

VERTICAL CULTURE

It's true that cucumbers are greedy for space, but they needn't dominate the entire vegetable plot. They adapt well to vertical growing. Many types of support material can be used for training cukes. A lattice, trellis or "A" frame with netting is simple to construct and easy to incorporate into a garden design. Use a structure at least 6 feet high and place it a few inches off the ground to allow for air movement. Help the young cucumber plants find the structure by placing their tendrils around the support and tying them. Continue training vines up the support as needed. Growing cucumbers vertically produces straight, blue ribbon quality cucumbers.

City dwellers can easily raise cucumbers on a patio, deck or in hanging baskets. The bush slicing varieties produce full-sized fruits and are ideal for container gardening. Wooden tubs, half wine barrels or any large container with drainage holes can be used. The standard cultural advice still applies: lightweight soil mix, fertilizer and plenty of water. Why not tuck a few cascading nasturtiums in the basket with the cucumber to provide food for the eye and palate both?

HARVEST

There are three rules for harvesting cucumbers - pick, pick and pick! If mature fruit is left on the vine, the plant figures it has finished production and will stop setting new fruit. Slicers are mature when 6-8 inches long; the larger slicing varieties should be picked before they are 10 inches long.

Most cucumbers reach maturity in 50 to 65 days. The fruit will be firm to the touch and the skin will have a uniform dark green color. To avoid damage to the vine, cut or clip the cuke from the plant rather than twisting or pulling it.

Because cucumbers are 96% water, they tend to shrivel quickly if not stored properly. Harvest

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in the morning when they are cool and firm. Wrap the cucumbers in a plastic bag and keep at a temperature of 55 to 60°F. The tastiest way to store cucumbers is to pickle them.

PICKLING

Pickling cucumbers should be harvested while small, 2 to 6 inches in length. They should keep well, if refrigerated, for up to a week. Even the busiest gardeners can find time to pickle a small batch of cucumbers using a short brine method. Place clean, fresh cucumbers in a deep, scalded bowl or crock, then cover with a brine solution. A brine solution is simple to make. Refer to any preserving cookbook for recipes. After curing the cukes in brine for two to four days, they are ready to eat. Very simple!

INSECT PESTS

Harmful insect pests can be managed if their living habits are known and if the garden is kept clean and free of trash and other residue. If a plant is badly infected, it should be removed from the garden and thrown away. Never add it to the compost pile. After harvest, destroy all cucumber plants to prevent overwintering of pests or viruses. Practice crop rotation, if possible.

The **cucumber beetle** (either striped or 12-spotted) begins life as a white larva found near the base of plants. The beetle damages plants in several ways. In the larval stage, it feeds on underground roots. As an adult, it feeds on stems, leaves, fruit, and on young plants which can wilt and sometimes die. The adult beetle is yellow with black stripes or spots, oblong shaped and 1/4 inch long. The eggs are orange. The adult carries a disease of cucumber called bacterial wilt. Starting seeds or transplants under a cold frame or covering young plants with cheesecloth may help deter beetles.

In spring, till the soil to expose any hibernating adults. Trellising plants, interplanting, and staggering planting dates may attract fewer pests. Beetles

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Cucumbers are easily grown from seed sown in warm garden soil. These seedlings are about three weeks old and need to be thinned to about a foot apart.
Photo courtesy of National Garden Bureau

can be handpicked off plants. For heavy infestation, control with pesticides containing one of the following chemicals: carbaryl, malathion or methoxychlor.

Squash bugs begin life as grey-green nymphs, about 3/8 inch long with red or black head and legs. Adults are brown to black with a light-colored outline on abdomen and about 1/2 inch long. The eggs are shiny and brick-red to brown. They are found on stems and unripe fruit. The squash bug sucks juices from leaves and stems, especially of young plants, which then wilt and shrivel up. Control by handpicking any bugs or egg clusters you see on leaves.

The **squash vine borer** also attacks cucumbers. Its larvae are about 1 inch long and white with dark heads. The adult is an orange and black moth with black stripes circling its abdomen. Larvae hatch from eggs laid at the base of stems by the moth in late spring. The larvae hatch, chew their way into the stems causing the plant to wilt or die. Signs of infestation include: small borer holes at the base of the stem, green sawdust-like matter inside stem or near borer holes. Control by alternating planting dates and practicing clean cultivation. At signs of infestation, slit stem and remove borer. Cover damaged stalk with dirt to prevent drying and to induce root growth. Cut off and destroy badly damaged stems. Apply pesticides containing malathion or methoxychlor when runners are less than 2 feet long.

DISEASES

Disase prevention among cucumber crops should begin with the use of resistant varieties. Cucumbers now have multiple disease resistances bred into cultivars. Resistance to mildews, at least three viruses, anthracnose, angular leaf spot, scab, target leaf spot and bacterial wilt are available. Often one cultivar is resistant to five or six diseases. Learn which diseases you might encounter

in your garden. Choose those cultivars that have resistances to the diseases in your area. Crop rotation each 3 to 4 years and clean cultivation practices also help reduce infection.

Anthracnose is a fungus that affects all above-ground plant parts. It is prevalent during warm (70-85 degrees) humid weather. Spores overwinter in debris and collected seeds. The disease is spread by splashing water, insects and unclean garden tools. The disease symptoms begin with the appearance of yellow, water soaked areas on leaves. They quickly enlarge, turn brown and dry. These areas shatter, leaving ragged holes. The leaves and vines die and the fruit darkens and shrivels. Anthracnose is an extremely destructive disease to cucumbers and is especially prevalent in the eastern United States. Use anthracnose resistant varieties and crop rotation to reduce chances of this disease. A fungicide can be used at the first sign of disease, but it is certainly easier to grow anthracnose resistant varieties.

A fungus also causes **scab disease,** which appears on the fruit as brown spots which develop into cork-textured growths. It is prevalent in the mid-western and northeastern areas of the country. Control scab by destroying infested plants and planting varieties that are scab resistant.

Bacterial wilt is a disease completely dependent on the cucumber beetle. It transmits the bacterium that causes the diseases. To control wilt, it is imperative to control the cucumber beetle. The best advice is to use bacterial wilt resistant varieties. Additionally, the home gardener should keep the crop area free of weeds and debris, and should discard cucumber vines at the end of the harvest since the beetle overwinters.

Aphids are often the culprits in the transmission of viruses such as cucumber, watermelon and zucchini yellow mosaic viruses. As these tiny sucking insects feed on plants, they spread diseases. Plant resistant varieties and control aphids when they first appear.

Powdery mildew is a fungus disease that occurs throughout the United States. Its fungal strands and spores are spread to healthy plants by the wind. The fungus causes round white spots to appear on the underside of leaves with subsequent yellowing, and eventual death, if not treated. Fruits ripen prematurely and have poor flavor and texture. The best prevention is the choice of Powdery mildew and Downy mildew resistant varieties of cucumbers. If your cucumber plants are not resistant to the mildews, a fungicidal spray can be used to delay spread of the fungus. There is no cure for the disease.

NUTRITION

Cucumbers are a dieter's delight at just 16 calories a cup. In the future, cucumbers may provide a greater benefit than just lo-cal crunch. Researchers at Iowa State University have found that cucumber leaves contain a cholesterol reducing enzyme, cholesterol reductase. If scientists can isolate this enzyme, it could be added to meat and dairy products to lower their cholesterol content.

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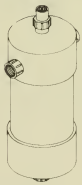

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A Bouquet of Books

By Elsie M. Topham

The San Diego Floral Association Library now has more than 3000 books of many varieties. Often there are several titles in the same family, but only one of each has been picked for use in this posy. Some are old-fashioned, and some are new; some are informative, and some are for enrichment. All of them deserve to be used and admired.

CLARKSON, Rosetta E.
Herbs and savory seeds; culinaries, simples, sachets, and decoratives. 1972. An unabridged reprint of the author's Magic Gardens (1939)

CROCKETT, James U.
Greenhuse gardens. 1977. Part of the excellent Time-Life Encyclopedia of Gardening.

FELL, Derek
Garden accents; the complete guide to special features for creative landscaping. 1987.

FISHER, Marjorie and **WISNEFSKI, P.**
Food and flowers for informal entertaining. 1965. A book for busy people who love good food, pretty tables, and easy hospitality.

GUILD, Tricia
Designing with flowers. 1986. A celebration of the way in which flowers can be used in the design and decoration of the home.

HOBHOUSE, Penelope.
Private gardens of England, 1986. A visual survey of thirty-three of England's most impressive private gardens.

HYAMS, Edward.
A history of gardens and gardening. 1971. This lively and comprehensive account of the garden from prehistoric to modern times also examines gardening as an enduring art form.

MARTIN, Laura C.
Garden flower folklore. 1987. For legends, stories, superstitions, a flower calendar, and the language of flowers, this is the book.

PAUL, Anthony and **REES, Y.**
The water garden. 1986. A guide to designing, installing and planting ornamental and natural water features for any garden.

PENZNER, Diana
Everlasting design; more ideas and techniques for dried flowers. 1987.

STEWART, Diana
The window box; pot, tub and basket book. 1985. Easy-to-follow advice on every aspect of container gardening.

VAUGHAN, Mary Jane
The complete book of cut flower care. 1988. For both the home consumer and the professional.

WYMAN, Donald
Wyman's gardening encyclopedia. 1986. First published in 1971, now revised, this book has become a bible for the gardeners of the U.S. amd Canada.

Members of SDFA may borrow books for home reading provided the library owns a duplicate copy. A $10 returnable deposit is requested. This list does not include books which are kept in the locked case. For more information please call the office.

Elsie Topham is the librarian at San Diego Floral Association library.

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WHITEFRINGED BEETLE – ADULT – GRAPHOGNATHUS LEUCOLOMA

New Insect Pest In Southern California

By California Department of Food and Agriculture

Whitefringed beetle, **Graphognathus leucoloma**, was found for the first time in California in August, 1988. As far as is known, this new insect is still limited to a small area in San Bernardino County where it was discovered.

A serious pest of nearly 400 crop and ornamental plant species, the beetle is approximately 1/2 inch long and brownish-gray with a broad white stripe along each side.

In the Los Serranos area of Chino, thousands of the beetles appeared last summer in swimming pools and gutters, on driveways and sidewalks. A homeowner collected specimens from his lawn and took them to the county agricultural commissioner, where they were tentatively identified, and final confirmation was made in Sacramento at the California Department of Food and Agriculture (CDFA).

Many southeastern states have attempted eradication of this beetle, but none could achieve it, since the insect is particularly hardy. It may pupate for one, two, or three years, and no chemical soil treatment has been effective, or is registered in California. There is no trap, lure, or pheromone for this insect. The only way to monitor its presence is by visual survey.

Whitefringed beetle has an extremely long emergence period in the southeast U.S., lasting from May to November. Under San Bernardino County conditions where there is no real "winter," adults have been seen all year, laying viable eggs all the while, thereby reproducing year-round. Since whitefringed beetle is parthenogenetic (self-fertilizing females only, with no males necessary for reproduction), only one individual insect is required to start a whole new population. Leguminous hosts (peas, beans, alfalfa, clover, etc.) increase the beetle's fecundity to approximately 1500 eggs during its lifetime.

A suppression program for the adult stage of the whitefringed beetle is being considered by the CDFA director, in addition to which research is being done on larval biocontrol. In Australia, larvae were 90 percent controlled using nematodes as biocontrol agents. The parasitic nematodes enter the beetles through spiracles and other orifices and carry a bacterium which is released in the blood, killing larvae within 24 hours.

A quarantine is currently in effect in the Chino area to prevent the spread of the infestation beyond its present boundaries. Homeowners, gardeners, and swimming pool contractors are all being asked to cooperate by disposing of lawn clippings, soil, etc. within the quarantine area, rather than transporting material to other sites.

Whitefringed beetle is widespread throughout the eastern United States and New Zealand. The larvae and adults have been observed feeding on 385 species of plants including alfalfa, carrots, cotton, corn, lima beans, potatoes, soybeans, and strawberries.

Once . . . Always . . .

By Elsie Topham

Kate Sessions was once a school teacher. She is known and loved in San Diego as a pioneer horticulturalist and gardener, and her memory remains as green as the trees she planted in Balboa Park. There must be others who, like myself, say a quiet "thank you, Kate" whenever they walk or drive along 6th Avenue; but I wonder how many know that when Kate first arrived, she worked, not among plants in gardens, but among children in school.

The urge to teach and to inform never left her; and nowhere is this instinct more evident than in the files of the San Diego Floral Association's **California Garden**, which has been in continuous publication since 1909. Kate wrote many items and articles, and her contributions are as fresh today in 1989, as when they appeared so many years ago. Through these pages we can meet her as a lively personality whose interest in books made her a staunch supporter of the library of the Floral Association.

On the shelves today are books which belonged to Kate, and which bear her signature of ownership. Especially interesting is a 56 volume set of bound copies of **The Garden** magazine, which was given to SDFA by Miss Sessions in 1925. Here, in her own words, is the story of how these books arrived in San Diego. Kate visited William Robinson at his home in England, and she describes her tour of the gardens and the lunch table conversation. "Discussing the flower books I had been seeing in London, I told of engaging the **Garden Illustrated** magazine, Mr. Robinson's own work for fifty years, but the set was short two volumes. I asked his assistance in securing them, and finally the fact that he would part with his own personal set complete and bound was modestly advanced. So I asked for time to consult the bookdealer for a release of my order, which they very graciously gave, and so in a few days, the Robinson set was paid for and shipped to De Lau & Co., to be reboxed for the long journey, via Panama Canal, to its new home with the San Diego Floral Association." This account, together with Kate's review of the magazine, appears in **California Garden** for November 1925; and here, writing the previous month, is the regular columinst **The Early Bird** talking about this gift. "The books are a complete set, substantially bound in half morocco, of the best Horticultural magazine in England during the last century, **Garden Illustrated**, consisting of fifty-six large volumes, each one containing many full page illustrations in color, all the highest examples of color printing. Practically all the new and rare introductions of the period are represented and, with the index to each volume, it is easily possible to follow the development of any flower, tree, or shrub. As a book of reference it is invaluable".

Kate Sessions was a very active member of the Floral Association, and there were others who worked long and hard to nurture the SDFA library. Over the years the book collection has been enriched by many bequests and gifts, and the locked book case contains some rare books which are real treasures. The record of all this is clearly seen in past issues of **California Garden** and in the library's accessions book. But by the early 1980's the need for reorganization and reconstruction was apparent, (I think Kate would have been very vocal on this point), and it is to the credit of the SDFA presidents who served during these years that they saw to it that a renaissance was accomplished. Today the library owns some 3200 books, plus a selection of magazines, and a substantial pamphlet file. It answers a wide range of questions, and provides resource information for those who browse its shelves. I like to think that William Robinson would be pleased with the outcome of his gesture. As for Kate, I wonder what she would say if she could see us now. It is an intriguing speculation.

Elsie Topham is the librarian of the San Diego Floral Association's library.

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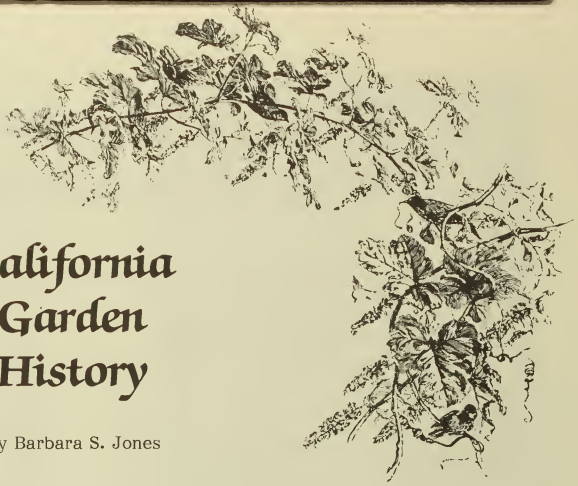

California Garden History

By Barbara S. Jones

CALIFORNIA GARDEN is the oldest horticulture magazine in the United States in continuous publication. Today, after 80 years, I think the founders would be surprised!

Why? Well, for 78 of these years the editor has been an un-paid volunteer, and it has rarely been self-supporting. (Fund-raisers and the largess of members have "bridged-the-gap".) All of the writers, photographers, and artists are volunteers with only the actual typesetting and printing done by paid professionals. Some of the most famous American horticulturists, botantists, educators, and artists have contributed through the years. The magazine is a valuable source of horticultural and social history.

At the urging and with the support of the Chamber of Commerce, the San Diego Floral Association was founded in 1907. Alfred D. Robinson, an internationally known horticulturist, was the first President. In 1909, after finding that San Diegans were having trouble growing plants in this climate and soil, the Floral Association decided to produce a magazine devoted to local growing problems. Kate Sessions, also an internationally known horticulturist, worked closely with Robinson. L.A. Blockman, Miss Manasee, and F.A. Frye were on the committee. The first magazine was published in July 1909; 8 pages without a cover. It was enthusiastically received by San Diegans and was praised in Los Angeles and San Francisco newspapers. At 5 cents a copy it was a bargain. By 1911 one could be a member for $1.00 per year, subscribe for 50 cents or get both for $1.25.

For many years, minutes of the meetings were printed in the magazine, but as subscriptions from other areas increased, this was discontinued.

The magazine has been issued monthly, seasonally, quarterly, and irregularly. During World War II, when paper was rationed, Alice Clark was determined that the magazine would remain in continuous publication. Alice joined the Floral Association in 1915. Newly graduated from Mills College, she and a friend had an art studio in the 1915 and 1916 World Fairs held in Balboa Park. The Floral Association gave several flower shows during the Fairs. Alice came, "fell-in-love" with begonias, and become a life-long friend of A.D. Robinson and the Association. (And a famous painter of begonias.) She wrote for, drew for, and edited California Garden. During World War II, no paper could be obtained for California Garden. Through friends, she learned of a printer going out of business in Arizona who had some paper. She got on the train, went there, bought paper, shipped it to San Diego. Three slim issues with no covers were printed in 1944 and 1945.

In 1969 the magazine was months behind schedule, subscriptions were down, and it was in debt. Virginia Innis was the newly-elected president and Barbara Jones was the newly-appointed editor. They were determined that the magazine would not fail. Virginia started the tours, and as money was raised, another issue was printed. Publication costs were halved by going to photo-offset printing, and doing our own typesetting on a second-hand machine. The issues during that period were not too beautiful, however, California Garden survived. When Beverly Kulot became president, she raised enough money for a good typesetting machine. She increased the tours and started the boutique, raising enough money to create a reserve to insure the continued publication of California Garden.

After 80 years, California Garden is written, edited, illustrated, and mailed by volunteers. We are still not completely self-supporting, and fund-raising continues. We are now read in foreign countries, at research institutions, and by New England gardeners with glasshouses. We are still doing what we do best -- helping San Diegans grow plants better.

Here's An Innovative Recipe To Try:
Cooked Tumbleweed Greens

By David L. Eppele

The desert west has one plant that we may well have been able to live without. The Hopi Indians call the plant "white man's plant."

It's an introduced plant from Eurasia called Russian thistle — better known in the west as tumbleweed. Songs have been written about the plant, a well-known newspaper cartoon bears that name and it's one of the primary sources of hay fever, ranking right up there with ragweed and bermuda grass.

The botanical name of the plant is Salsala kalis and our variety is known as tenufolia. There's another variety in midwest known as collina. A nicer name, and a nicer plant.

By the way, "kali" is an Arabic name meaning fierce, or sharp. The genus name is from the Latin, "salsus," meaning salty, referring to its affinity for alkaline soils.

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The plant was introduced to the American desert in hopes it could be used as a forage crop and soil stabilizer. Guess things got out of hand, because the plant seems to grow better than any other desert plant, and certainly with much less water.

Farmers and ranchers have learned to make livestock food from tumbleweed, both as hay and in pellet form."

Some cottage industries have figured out how to compact the large dried plants into logs, called "tumblelogs" and sell them as fuel for the wood stove and fireplace.

In Europe (Spain and Portugal) the ashes of tumbleweed were once used in the production of an impure carbonate of soda called "Barilla."

I can remember the first time I saw a tumbleweed, a big tumbleweed, rolling along the railroad tracks in front of a train. Here was this huge locomotive, pulling a freight train along at 50 miles an hour.

The engine's whistle was being blown for a railroad crossing. I didn't see the crossing, and thought it was strange that the engine was blowing its whistle for the tumbleweed to get out of the way.

I also remember rooting for the tumbleweed to win the race!

Desert travellers have been known to have serious auto accidents when a big brown ball, three or four feet in diameter crosses the highway in front of their car.

Many motorists feel they must swerve to get out of the way, or worse yet, come to a complete stop to let it pass. Now, that can get messy!

I have seen a couple of rear-end collisions caused by tumbleweeds. In both accidents, there was serious personal injury.

That big weed won't hurt your car! It may leave insignificant scratches on the paint job, but those are easily rubbed out. There's a pun there, but I'll leave it alone.

Tumbleweed found its way into the United States in imported flax seed. The Russian flax seed was brought into South Dakota in 1873, and by 1898 Russian thistle was established in Colorado.

It was introduced along railroad tracks throughout the west by falling out of box cars.

Russian thistle is not true thistle, but rather a member of the **Chenopodiaceae** or goosefoot

family that includes lamb's quarters, cultivated beets and spinach.

Gardeners know they're in trouble when thousands of tumbleweed plants sprout overnight and seemingly carpet the garden with their presence. The only consolation is that they are easily removed in the first three or four days.

But if you're like me, you'll put off weeding for just a few more days, and wind up with a real first-class weeding job on your hands.

Now, if the tumbleweeds are under three inches, try making salad with them. That's right, salad!

Collect young shoots when the plants are only two to three inches tall. They are tender and succulent at this stage, but grow rapidly and soon become tough.

After the shoots are gathered, rinse and trim the roots from the shoots. The young greens can then be steamed and eaten with butter or combined with other vegetables.

Very young sprouts may be chopped and used raw in salads.

Darcy Williamson, who's an old-time traveller of the desert from Bend, Ore., wrote a book called "Wild Foods of the Desert." This book offers some of the wildest gourmet recipes you've ever heard of.

But think about it. Juniper berries, pinon nuts, acorn meal, pickled nopalitos and prickly pear jelly are a few of the high-priced wild desert foods which hold prominent positions on the shelves of the specialty and gourmet shops across the United States.

On page 141 Darcy has this recipe:

TUMBLEWEED GREENS (6 servings)

8 quarts young tumbleweed shoots, chopped
1/2 cup cold water
6 slices bacon
1 egg, lightly beaten
1/4 cup sugar
1/4 cup cider vinegar
1/4 cup water

Put greens in kettle and add 1/2 cup water and simmer 10 minutes. Fry bacon crisp, crumble and set aside (reserve drippings).

Combine egg, sugar, vinegar and 1/4 cup water and pour into drippings in skillet. Heat slowly until slightly thickened.

Remove from heat and toss with cooked greens. Serve garnished with bacon.

In his book, Darcy Williamson also has recipes for Tumbleweed-Sausage-Lentil stew, Rice Tumbleweed casserole, Tumbleweed-Pea Spring soup, Herbed Tumbleweed, Tumbleweed-Pinon Ring and Tumbleweed Au Gratin.

His book is published by Maverick Publications, of Bend, Ore.

I think I'll go home and whip up a Thistle-noodle casserole.

HEMEROCALLIS 'ARTIST'S ETCHING'

Hemerocallis

Story and photo by Wayside Gardens
Hodges, South Carolina 29695-0001

Hemerocallis, America's favorite for full sun, has proved itself the most versatile and trouble free perennial. Gardeners who carefully select their Daylilies can have flowers from June to September. Dedicated breeders have improved Daylilies by creating cultivars with larger flowers, greater flower production and longer blooming periods. Although the color range is almost infinite, few display the blend of pastels that is carried to perfection in 'Artist's Etching' which has ruffled apricot blossoms, and a gold apricot-colored throat. A tetraploid, this Daylily has larger flowers, longer lasting blooms, more attractive foliage and improved heat resistance. Gardeners get a plant with more stems and as many as 30 flowers per stem. The four and one-half inch blooms cover the 28-inch stems in midseason. (Zones 3-10)

Culture: Plant in the spring or the fall in a sunny or partially shady location. The pastel types do best when some shade is provided, and tend to fade in direct sun. Almost any well-drained soil will produce results, but Wayside suggests a moisture-retentive medium where the soil is not waterlogged, especially in winter. Once in the ground, plants may be left undisturbed for years.

Digging For Roots

By Bess M. Tittle
(first serial rights)

Midway between Tel Aviv and Jerusalem in Israel lies Neot Kedumim, the only Biblical landscape preserve in the world.

Its creator, Nogah Hareuveni, firmly believes that the ecology of Israel is the key to understanding the Biblical events that took place there.

Supported by the state of Israel, a dedicated staff, professional advisors, and legions of volunteers, Hareuveni, after exhaustive research, turned barren stone and sand, rocky hillsides and thistle-covered gullies into a living museum of ancient Israeli landscapes.

Hareuveni explains, "The patriarchs, judges, kings, and prophets used the language of nature, intimately known to the common people -- mainly farmers and shepherds, to preach their revolutionary ideas. The very fabric of the Scriptures, narratives and prophecies, are therefore peppered with images, allusions, parables, and metaphors drawn from nature.

Experts have debated the significance of this figurative language for centuries. Dr. Hareuveni and his coherts sifted through a tangle of interpretations and misinterpretations to uncover the correct botanical references in the Old Testament and the Talmud.

The result: 550 acres of environment duplicating the landscapes of the Bible.

Thousands of tons of soil were trucked in to reconstruct ancient terraces. Reservoirs were dug and lined with plastic to catch winter rain for irrigation. 75,000 saplings, thousands of shrubs, vines, and flowers were planted.

In this place, specimens from the mountains of Lebanon to the Sinai sand dunes thrive where experts say they cannot — explained best by the extraordinary attention and persistence of the staff.

June Fortess, Executive Director at the Preserve, says, "Neot Kedumim serves as a contemporary link between Jews and Christians. They, along with students of all ages, botanists, ecologists, nature lovers, and Bible readers, come here to see Israel through the eyes of the prophets."

Nogah's parents conceived the idea behind this project. He then expanded their vision to make Neot Kedumim his memorial to their life work of studying the plants of the Holy Scriptures.

The Preserve, located near the village of Modi'im, can be explored by guided tour, with self-guide pamphlets, or through field study programs. The trail is marked by juniper wood signs; plants and trees are identified in English, Latin, Hebrew, and Arabic by Biblical identification and precise botanical description. Historical and Biblical lore are included.

An olive grove marks the entrance with the hostel and study center just beyond. Meals and accommodations are reserved only for groups.

A spiral walkway inscribed with tributes to donors and loved ones winds through myrtle bushes and a carpet of flowers to Friendship Overlook where there is a panoramic view of the Judean foothills, with Tel Aviv and the Mediterranean visible in clear weather.

The trail leads past a single carob tree, the symbol of Israel's work for future generations. When the Roman Emperor Hadrian viewed an old Israelite planting a carob seed, he mockingly asked why at his age he was planting what would take years to bear fruit. The patriarch pointed to a fullgrown tree behind him: "As my grandfather planted for me, so I plant for my children."

Further on is the Hill of the Menorah where a number of species of moriah, a type of sage (**Salvia palestina**), grow. The plant provided oil for Temple lamps and resembles the menorah, the 7-branched candelabrum used in Jewish Sabbath services. Exodus (Chapter 25 and 37) contains an exact description of how Bezalei fashioned the first monorah for the tabernacle in Sinai: patterned with three knobbed branches on each side of the main stem with so many calyxes and flowers on each branch.

King Solomon's "mighty cedars of Lebanon" cover the Garden of Wisdom Literature section. Nogah himself collected cedar cones in 1936 when he accompanied his parents to Beirut. The seeds were planted and survived on Mount Scopus in Jerusalem even though experts said the area was too low and too dry. When Neot Kedumim was being developed. Hebrew University sold 13 "runts of the litter" to Nogah, and they were transferred successfully to the Preserve.

Further on is the Dale of the Song of Songs with its "rose of Sharon," "lilies of the fields," mandrakes, pomegranates, figs, and grapevines. Hareuveni's interpretation of the "rose of Sharon" is the saffron crocus imported from Asia, and his candidate for "lilies of the fields" is the common field daisy (**Anthemis sp.**). In the Bible, Reuben presented mandrake "eggs" to Leah to help her conceive. The mandrake is a broad leafed weed, growing close to the ground with yellow, egg-shaped fruit.

Hyssop (**majorana syriaca**), mentioned frequently in Scriptures (for instance, the vinegar-filled sponge passed to Jesus on the cross attached to a hyssop branch), is a gray shrub with thin woody branches, representing humility.

A dusty little shrub, the Negev Arabs call midnan, from which they make tent rope, is yeter in Hebrew, in Latin **thymelea hirsuta.** Incredibly strong rope is made by braiding the fibers of this bush. In Judges (Chapter 16) Samson's strength was tested by binding him with strands of yetarim. Today Israeli troops are taught to make rope from yitran in desert survival courses.

The next area on the trail is The Ascent of the Four Species of Sukkot, planted with the only willows which can be used to construct the booths of the Fall festival of Sukkot.

The Garden of Choice Products and Fields of the Seven Varieties is designed to furnish deeper understanding of Jewish festivals, traditions connected with them, and their ties to the agricultural cycle of the land.

The Forest of Milk and Honey lies at the far reaches of the developed area. After extended studies of texts and fields, Dr. Hareuveni concluded "The Land of Milk and Honey" did not refer to agrarian riches but to pre-agricultural terrain -- dense scrub forest producing browse for milk-producing wild goats and myriads of blossoms for honey-producing wild bees.

In the display of the Jordan River Thicket grow the "willows of the brook" (Leviticus 23:40), where the Israelites camped before entering "the land flowing with milk and honey." Instructions were "take on the first day (of Sukkot) a fruit of a goodly tree, date palm fronds, a bough of a leafy tree, and willows of the brook . . ."

The Talmud outlines the four species of willows Jews around the world could use: reddish twigs and long leaves with smooth margins, resembling two species native to Israel: **Salix alba** and **Salix acrophylla.** In the U.S. **Salix purpurea** or purple osier willow are used. At the Preserve the willow display again records how scripture and ceremony are bound together in the native habitat.

Neot Kedumim serves as a model for ecologically sound agriculture, using lessons from ancient instruction. For example, the Talmud contains a detailed discussion of cross breeding, pollination, hybridization and soil indicator plants. Everything here is done organically, without chemicals or pesticides.

Recently 200 five hundred year old trees were transplanted to Neot Kedumim from the path of a new highway to the Hill of the Menorah. The Preserve team, in partnership with the Almighty, holds a stewardship for the land, and provides an example to the world that the wise use of our earth is a religious obligation, says Nogah.

Additionally, nature is working to complete the ecology. Helen Frenkley, an American-Israeli guide, tells us: "What was an utter wasteland is now blooming with everything imaginable. Now dozens of varieties of birds make our ponds regular stopping places on their migratory routes. Jackals, gazelles and other animals are reappearing after many generations."

In another type of educational effort, a curriculum in school classrooms has been developed to reinforce visits of 35,000 children each year. It combines study of the Bible, history, and natural sciences.

Dr. Hareuveni says, "I created Neot Kedumim to explain the significance of the relationship of the land and the people of Israel to all those who accept the Bible as part of their cultural heritage."

For further information in the U.S. contact, Americans Friends of Neot Kedumim, 270 West 89th Street, New York, NY 10024. Phone: (212) 769-1866.

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BOOK REVEIW by Harry W. Tolen

THE ORCHID INFORMATION EXCHANGE, (10) pages published monthly, publisher — Doreen Vander Tuin, 1230 Plum Avenue, Simi Valley, CA 93065. Dues $10.00 per year (12 issues).

This is a very unusual publication in that it is just what it's title says, for exchange of information about orchids. Done as a labor of love by Ms. Vander Tuin, no advertising, no sales pitches, just scads of very helpful information about orchids and orchid growing. Organized in 1984, the "O.I.E." allows growers to get in touch with each other to exchange cultural information or observations on the orchids they grow.

First, it is a list of all the members and their interests who wish to invite correspondence from other orchid growers. Second, members can ask specific questions and get lots of answers. Third, members can candidly discuss commercial establishments they have purchased from and/or visited. Fourth, things like potting mediums, pest control, fertilizers are constantly discussed. Fifth, programs and orchid activities sponsored by societies around the country are shared and discussed. Sixth, book reviews round out the features carried. The latest issue carries information from Canada, Germany, Florida, South Carolina, California, Pennsylvania, Illinois, Virginia, Texas, New York, Arkansas, Ohio, etc., a truly wide spread of orchid information.

I highly recommend this for persons wishing current information and happenings. If you are a very experienced grower, you may help many others with some of your favorite tricks. If you are a novice, you may ask questions and be assured of answers from many "hands on" novice growers like yourself.

I guess the reason it took so long for me to hear about this publication has got to be a very limited advertising budget. Figure the pages published, postage, once a year membership list, and the $10.00 dues, can't leave anything! Sounds like a rare bargain, my membership application is on it's way in.

HOW TO PROPAGATE PLANTS by Jack Plumridge. Available from ISBS, 5602 NE Hassalo St., Portland, OR 97213-3640. 214 pages. Softcover. 1976. $12.95.

This is already a well known book. The first printing for hardcover was in 1976. Several re-prints later they have decided on a softcover printing and this is the second edition of that. A book has to be good to stick around that long. The pictures and methods described are pretty standard. It's just a consolidation of information with very complete instructions for anything from coleus to anthuriums. If you follow the instructions for your next plants, you will no doubt be successful. I think this book will be invaluable to anyone interested in propagating plants commercially. Very good data.

HOW TO MURDER YOUR PLANTS by Marilyn Hencken. Available from ISBS, 5602 NE Hassalo St., Portland, OR 97213-3640. 1987. 112 pages, 6"x9". Softcover. $10.95.

This is a book about the care and training of people who own house plants. Well worth the money! The first chapter starts off, "How to murder your plants! Getting started". You can see this is a lighthearted little book, but still gives all the ways and means of doing plants in, and how to avoid same. Ms. Hencken has done shows on TV like Hour Magazine, and the Disney Channel. Her humor and Stan Sakai's cartoons will entertain you, no doubt. The book has so much of the wry humor, I am still wondering if I missed something. The book sent me for review has pages 58 thru 90 upside down and backwards, and I could not figure out why. It could be an error, but I'm really not sure! Check your copy before you buy. Worth every penny!

MODERN PLANT PROPAGATION by Allan Gardiner. Available from ISBS, 5602 NE Hassalo St., Portland, OR 97213-3640. 1988. 186 pages. 6"x9", Softcover. $16.95.

Another companion to the first book reviewed, this book updates some information while supplying other data not found in the other book. This should also prove of value to anyone seeking to propagate plants commercially, while at the same time be of interest and use to the home hobbiest. A few color photos and lots of black and whites are shown. It is a complete guide to successful propagation for the home and professional gardener.

POT POURRI— A Practical Guide by Mary Lane. Available from ISBS, 5602 NE Hassalo St., Portland, OR 97213-3640. Softcover. 96 pages. 7"x8 1/2". $9.95.

Pot pourri to me meant they could ask you nearly anything they wanted on Jeopardy! Now I find out what it really means. (I have led a very sheltered life.) A pot pourri, as put together here, is a gathering and blending of scented items from the garden or woods, blended with herbs and possibly oils to produce a scented mixture. The mixture can be displayed in a decorative container, perhaps even sewn into a pillow. But the prime purpose is to create a more pleasing environment, perhaps reminding you of a country walk you once took. This book gives recommendations of many scented plants that will work nicely, lots of recipes, and pictures of how to present these concoctions after you make them. You might even find that something

you've been looking for to revive ... well ... the introduction says pot pourri uses can be from the simple strewing of sweet herbs on the floor, to the subtle blend of flowers, herbs and spices made to sweeten the air, and thereby promote good temper ... sleep ... energy ... or even ... passion! Good Luck! Small subject covered very well, good value at the price.

HOW DOES YOUR GARDEN GROW? By Pamela Jones. Published by Viking Penguin Inc., 40 West 23rd Street, New York, NY 10010, 1989. 238 pages, 6"x9". Hardcover. $19.95.

This essential home garden book is a real down to earth garden book for the beginner or novice. Very basic information presented in an entertaining style. Informative without being boring. If you have been into plants for quite awhile, you may need deeper explanations, but as long as I have been growing, I found useful information too. I especially liked the chapter on "Watering". Pamela tried very hard to give you the knowledge to make your watering decisions. She even made some very specific recommendations which you will not find. Chapters on watering are usually very general, and leave it up to you, anyway. Pamela primes you with all the possibilities to look for, before you "turn on the tap". I remember getting a brochure on a certain type of orchid from Mexico. The chapter on watering was one sentence. "Water neither too little, nor too much!" Thanks a lot! Pamela will make gardening and watering much more enjoyable for you. Money well spent!

GARDENS FOR SMALL COUNTRY HOUSES by Diana Saville. Available from Viking Penguin Inc., 40 West 23rd Street, New York, NY 10010. 1989. 8"x10 1/2". 208 pages. 140 pictures, black and white and color. Hardcover. $24.95

A new book that perhaps could have been more accurately titled "Gardens for small country estates". If you have a castle in town, you would have one of these country houses out in the country, right? This is a look at the tradition, and then the modernizing of some old English estates, or country houses. It tells how the gardens were presented, and what has taken place lately to keep the gardens current. A nice picture book. There are lots of color pictures of ideas to make the garden as peaceful a place as possible. This is sort of a "small portion of history" book.

THE CREATIVE GUIDE TO DRIED FLOWERS by Carol Petelin. Available from Viking Penguin Inc., 40 West 23rd Street, New York, NY 10010. 160 pages. All color photos. 9"x11" Hardcover. $24.95.

It contains step by step instructions on flower drying, recommendations as to what to dry if you want a certain color or scent, great pictures for instructions, and lots of good pictures to show how to display these flowers after they are dried. This is very well done, and an entertaining book. The pictures make the whole book, and they are

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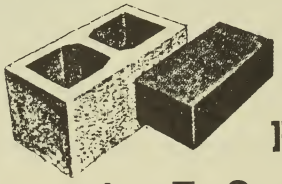

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excellent. Simon McBride is to be congratulated on composition and clarity. Well worth the bucks, you would not have to ever dry a flower to enjoy this book.

THE COMPLETE BOOK OF HOUSEPLANTS by Charles Marden Fitch. Available from Hawthorn Books, 2 Park Avenue, New York, NY 10016. 308 pages. Softcover. 1979. $7.95.

Any book that sticks around this long speaks for itself. Very comprehensive in scope. Charles has imparted tons of his hands-on experience to you. Excellent pictures are mostly all by Mr. Fitch himself. He has taught, been a TV director, and studied animals, plants, and nature extensively. He has traveled, studied, and photographed all over the world. An extremely sensitive photographer, he has hundreds of pictures used in national publications along with article he writes, but also when others write. The American Orchid Society couldn't get along without him. There are over a thousand houseplants described, many of the less familiar types with cultural hints. I think you will enjoy this book, and find you will use it frequently. Kind of a houseplant bible. Worth more than the price!

THE COMPLETE BOOK OF TERRARIUMS by Charles Marden Fitch. Available from Hawthorne Books, 260 Madison Avenue, New York, NY 10016. 150 pages. 1974. Lots of black and white pictures, a few in color. $8.95.

Another book that has survived the ravages of time, it is still current, even though it was published in 1974. If I read the information correctly, this is in its tenth printing. Most of the pictures were again done by Charles. This is a must book for terrarium lovers. Very comprehensive. I couldn't think of anything else he could have included. Most of these plants and techniques Charles used himself. He has pictures showing most techniques, and a source list that will be most useful. Find the type of plant you want, and look it up in the source list. The book cover says "A Practical Illustrated Guide to Terrarium Gardening" and I can't think of a better way to sum it up! Worth more than the price!

FOR THE PEOPLES PLEASURE By Carol Henty. Available from Rizzoli International Publishers, 597 Fifth Avenue, New York, NY 10017. 186 pages. 9"x12". Over 300 color photos. Hardcover. $50.00.

This is a presentation of fourteen of Australia's most highly prized botanical gardens. It has great pictures, large enough to really see things, because of the large format. I found a **ficus macrophylla**, the Morton Bay Fig, planted in the Lower Garden, 130 years ago in The Royal Botanic Gardens, Sydney, to be the splittin' image of our ficus just north of the Natural History Museum in Balboa Park. The book reviews and maps each garden, gives the history of each, and shows many beautiful color pictures taken throughout the gardens to add to the enjoyment of this book. A stiff price, but I think worth every penny.

BOOK REVIEW by Elizabeth Glover

JARDIN BOTANIQUE de NIKITA (Botanical Garden of Nikita) From the Central Scientific Agricultural Library, Department of International Book Exchange, 107804 Moscow, B-139, Orlikov per., 3. USSR. 6 1/2"x6 3/4". 132 pages. Softcover. Cost unknown.

Nikita Botanical Garden had its 200th anniversary. It is a very popular tourist attraction with over 700,000 persons visiting the garden annually. The garden participates actively with international symposiums, and exchanges plants and knowledge with 79 countries throughout the world. The book contains many beautiful colored pictures of various flowers which are familiar to us, and also shows pictures of their laboratory, and of important persons who worked there. Christiane Steven was the founder and first director of the garden. If you can read Russian or French, you could learn much valuable history and information about Nikita Botanical Garden. It is not written in English.

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Alstroemeria 'Meyer Hybrid'

By Judy Wigand

CULTURE: Best grown in cool, moist, medium loam. Place in a sunny or lightly shaded situation. Loose organic matter mixed into the soil will benefit the plant and increase its growth rapidly. Allow 3' to 4' in diameter when placing your plant. Plants average approximately 3' in height. Applying food every couple of months will promote growth and flowering. Any type of food, preferably a timed released fertilizer as Osmocote, will do. Mulch the base of the plant to keep the ground cool during summer. This also protects the roots during winter months from frost damage.

Placing your plant in sun or light shade depends on your climate. From coastal regions to approximately 20 miles inland, full sun is best. A sunny location will cause more upright growth. If your summer temperatures reach 85° to 90° or higher most of the summer, partial shade would be advised. Alstroemerias will go dormate in too much heat. This means the foilage will die back. It will seem as though the plant is fading away. Don't be alarmed, its only resting. The roots are still very much alive. As the temperatures get moderate, it will send up new shoots and give a bloom wave in fall. During winter months if temperatures reach below freezing, the foilage will be frosted. If this is an occasional freeze, the plant will revive, sending up new shoots as the sun warms the ground. The 'Meyer Hybrids' have survived 18° Fahrenheit frost.

Alstroemerias bloom from early spring through the year until frost. After a flower stalk is spent, remove it by giving it a sharp tug near the base of the plant. Do this singularly, as pulling more than one at a time could damage the roots. When old or yellowed stalks are removed, new flowering stalks will sprout.

The root system of the Alstroemeria is tuberous. There is a lot of reserve stored in these tubers. Watering at regular intervals will keep it flourishing. On the other hand, during water shortages, plants need not be watered in the summer, letting them go dormant. With winter rains, they will come up again and bloom for spring.

The 'Meyer Hybrids' are exceptional perennials. Flowers are in clusters of azalealike blossoms, in beautiful colors ranging in various shades from pink to purple. The flower lasts for two weeks in the vase. They can add a new dimension to most styles of gardens. They look especially nice mixed with other herbaceous perennials.

Lilium 'Casa Blanca'

Each flower spike has as many as eight fragrant, ten-inch orchid-like white blossoms contrasted by protruding, auburn-colored anthers. The flowers appear in late July and early August on stems four to five feet tall. Provide this New Zealand native a place with afternoon shade and apply a winter mulch in the north to obtain the best results and watch the plants multiply year after year. (Zones 5-9).

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Compiled by Penny Bunker

AFRICAN VIOLETS
Helen La Gamma, Balboa Park African Violet Society

take time to groom your violets by removing lower row of leaves and all flower stalks.
repot only if necessary.
put all plants on wicks using 3 1/2 to 4 cup reservoir.
check all electric cords and fixtures for safety.
have a worry free vacation

BEGONIAS Margaret Lee

continue repotting.
take cuttings for extra plants.
continue a balanced feeding program; use 1/4 strength once a week.
spray for pests and disease control, if necessary; use a malathion-base spray.
trim back and restake some cane varieties where needed.
prune for shaping, and encourage side-growth; do this gradually, about 1/3rd of the plant, to avoid shock.
protect from too much sun and drying winds.
keep damp, but not wet.
watch the tubers, and repot as soon as they reach a height of three or four inches --place in strong filtered light.
watch tuberous for signs of mildew; correct with dust or spray.

BONSAI Dr. Herbert Markowitz

prune all trees to promote growth and shape. Tip prune junipers and pines using finger pruning instead of cutting tools, which cause brown tips.
develop a watering schedule, but avoid overwatering especially pines.
spray for insects as needed, using either a systemic or a mild surface insecticide.
shape deciduous trees. Defoliate the deciduous trees in June. They may be transplanted afterwards.
control any mildew that may appear; use sulphur dust or a liquid spray.
fertilize trees with an organic fertilizer. Do not overfeed the pines.
complete the repotting of all trees that have not been repotted, except for the flowering trees that have not completed their blooming cycle.
place trees to receive optimal sun, but do not place in full sun after 11:00 a.m. to prevent sunburning.
rotate trees often to maintain proper shape.

BROMELIADS Mary Siemers

establish a monthly fertilizing schedule to be used during the warm months only.
use a fertilizer that is high in acid -- using only half the recommended strength. Bromeliads do not care for fish emulsion.
remember to water your plants before fertilizing.
beware concerning fertilizing the genus **Neoregelia.** It is believed they will do as well without being fertilized.
water according to the temperature in your area; the weather dictates how often. Never allow the medium to be soggy.
provide filtered sunlight to keep plants from burning during the hot months.
always check your plants for scale. When treating scale with malathion, use the "water-base" type on it.

CACTI & SUCCULENTS Joey Betzler

water plants, but not too wet. When pots get noticeably light in weight, water them.
fertilize for growth and flowering. Allow the winter growers to go dormant, and rest before feeding.
protect the plants from brilliant sun. Shade cloth can keep plants from being bleached out on very hot days.
check any additions to your collection for insect pests. Keep away from rest of plants. If pests or disease are noticed, treat at once.
repot those plants needing it; use a well draining mix, but do not overpot. Good "rule of thumb" is to allow an inch between plant and the pot.
repot seedlings when they have doubled or tripled in size. If they have been in same mix for over six months, it is a good idea to repot.
check entire collection for any pests or disease; if so, treat at once to avoid an infestation.

CAMELLIAS E.C. Snooks

give plants their second feeding of cotton seed meal or commercial fertilizer.
water as needed -- keep moist, but not wet at all times.
repot plants which have gotten too large for their container.
water well a day before feeding; never fertilize a dry plant.
mulch plants well with redwood compost or pine needles.
prune to shape and to thin out centers of plants.

transplant plants which have started new growth.
watch for insect pests — spray with Cygon, if present.

DAHLIAS Abe Janzen
feed with low nitrogen fertilizer (4-10-10) either dry or liquid.
spray weekly to control insects. Guard against leaf miners, thrips, and aphids. Try a systemic. If spraying, use a weak solution on new foliage.
water when top of soil is dry; when buds are forming, soak deeply and more often.
pinch out centers of plants when two or three sets of leaves have developed.
be sure to draw the soil up around the plants as they grow.
plant smaller varieties and give regular care for growing.

EPIPHYLLUMS (Orchid Cactus) Frank Granatowski
protect foliage from the hot summer sun. It is best to keep plants in filtered sunlight.
regularly water to keep soil moist but not wet. Water at base of plants to avoid injury to blooms.
bait for slugs and snails. A few granules of Sluggeta at the base of plants have proven to be effective and leave little, or no residue.
remove spent and wilted blooms by cutting about 1/2 inch from base of flower.
continue grooming plants — prune older branches that are no longer productive. These branches can be used for new plants.
repot cuttings and plants that have outgrown their containers.

FERNS Ray Sodomka
remove dead fronds.
plant spores.
use high-nitrogen fertilizer, liquids or pellets, twice a month.
spray for aphids and scale, if necessary.
water thoroughly; maintain humidity by watering surrounding areas.

FUCHSIAS William Selby
pinch for shape and fullness.
fertilize with high phosphorus/potash fertilizer for buds and blooms. Be sure to establish a regular feeding program.
pinch off tips for increased growth.
watch for pests. Spray if necessary for white fly, inch-worms, and aphids. Do not use oil spray.
water when needed - do not overwater.
turn the containers to get an even full plant; plants grow toward the light.
keep containers clean inside and out; remove dead leaves and blooms.

GERANIUMS (Pelargoniums) Carol Roller
water thoroughly when plants become relatively dry. Each watering should moisten the entire soil ball. Excess water should drain away. Keep foliage as dry as possible.
continue feeding a balanced fertilizer dissolved in water, using at less than the recommended strength to keep plants from developing nutritional deficiencies. Long-term pellets may be used, if desired.
continue pest and disease control using products according to the manufacturers' directions.
groom plants, removing discolored leaves and faded flowers.

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avoid taking cuttings from regals, (Martha Washingtons) and scenteds —this is their flowering season. Cuttings may be taken from ivies and zonals.
protect tender plants from the sun, if the temperature is high.
continue to rotate plants on a regular basis in order to produce well-shaped plants.
enjoy your plants at the height of their season.

IRIS
prepare beds for planting and transplanting tall-bearded after blooming. Work in humus, soil sulphur, and some well decomposed manure before transplanting.
keep watering those still blooming.
feed spurias with a low-nitrogen fertilizer.
feed Siberians after bloom with a balanced fertilizer to form bloom for next year.
feed Louisianas with a balanced food, but wait until June to dig and transplant.
feed Japanese iris with camellia food in water they are growing in.
watch for aphids; may use systemic insecticide.
allow the cut surface of tall bearded rhizomes to dry and be exposed to sunlight before planting, or give a light dusting of soil sulphur on the wounds. May place in vitamin B solution prior to replanting.

ORCHIDS Charles Fouquette
spray on hot dry days.
shade areas that are getting too bright.
remember to water the seedlings lightly in the morning and afternoon, but must be dry by nightfall.
maintain pest control against red spider, mealybug, and scale. Use malathion or non-petroleum derivative.
use Metaldehyde for slug or snail control.
protect plants that are in bud or spike against sudden temperature changes and drafts.
check your misting heads — water may have enlarged the orifice. Spray should be real fine; can replace.
repot Cattleyas with new growth. The back growths that have few roots can be placed in clear plastic bags for new growth. Place 3 or 4 bulb divisions with good eyes in plastic bags — blow up with your breath (CO^2), seal and hang up. Watch for new growth and roots.
start high-nitrogen feeding of cymbidiums and a complete fertilizer for phals and cattleyas — dilute for seedlings.
remember to stake the spikes and blooms on plants that need it, and do not rotate plants from their growing position once they have started budding or forming spikes.

ROSES Carl Mahaney
water 1 or 2 times a week, especially if weather is getting better, also before and after feeding or spraying.
feed balanced fertilizer monthly, followed by liquid fish emulsion in 2 weeks, per package directions.
watch for aphids, spider mites, rust, and mildew.
wash undersides of leaves to help remove spider mites, and also to clean bushes prior to spraying.
spray regularly to keep problems under control; Orthene for insects, and funginex for rust and mildew do an excellent job.
mulch your rosebeds after weeding and cleaning up, to keep roots moist and prevent weeds; redwood compost is excellent.
cut blooms for your house, friends, and neighbors, also to prevent petal fall.
enjoy your roses!!

VEGETABLES
plant seeds of beets, carrots, turnips, radishes, snap beans, summer squash, corn, and cucumbers. If plants of cucumbers and summer squash are used, they will bear sooner than plants from seeds.
plant leafy vegetables such as lettuce, endive, and spinach, in partially shaded locations during the hot months.
fertilize vegetables in good soil (except corn, lettuce, and tomatoes) every three or four weeks, and those in poor soil, more frequently.
fertilize corn when it is 8 inches tall and again when 18 inches.
fertilize lettuce once when it is half grown.
fertilize tomatoes once a month after fruit has formed and not before.
water furrows by flooding, or by drip irrigation instead of overhead sprinkling which can run risk of disease.

GREEN THUMB ITEMS
remove dried foliage of bulbs and tie back other foliage to allow to dry naturally before removing.
feed azaleas and cut back dead wood.
plant gladiolus bulbs for fall bloom.
plant summer annuals for color.
invest in blooming perennials available in June — daylilies, agapanthus, shasta daisies, etc.
pinch chryanthemums for bushier plants with more buds in the fall.
plant summer-blooming annuals — zinnias and marigolds, for late summer bloom.

Birds of Paradise

Story and illustration by
Robert D. Horwitz

Outstanding in southern California gardens is the Bird of Paradise or the **Strelitzia.** This exotic plant typifies the glamour that is associated with California gardens and garden styles. There are two main versions of the garden **Strelitzia,** the **S. Nicolai** which is the Giant Bird of Paradise, and **S. Reginae** which is the smaller plant and grows in a clump-like form in contrast to the Giant's tall fan-shape.

The giant grows slowly to twenty-five feet needing lots of sun in the coastal conditions, and planted in soil that will accept large amounts of water and fertilizer. It produces somewhat sticky shabby flowers with a bluish tinge to its petals that extend from the flower pod. The flowers are overpowered by the dramatic production of vivid green banana-like leaves appearing on many stalks coming from the base of the plant and spreading out fan-like. It is quite hardy, and should be used for its leaf display. Keep dead and shabby foliage and flowers pruned, otherwise the plant will not maintain its vivid outline.

The smaller member of this family is the one which displays, in early winter, a flower that resembles an exotic bird's head. The pod is of a grey cast over green, opening at the top to display orange, blue and white petals extending vertically. Some produce a doubling of the pod to display more petal structure. The flowers can last two or more months before they become shabby, and the colors fade to brown. The rest of the year the plant produces leaves that are nine to fifteen inches long, forming a slight concavity and displaying a light green vein system which contrasts with the greyish-green of the rest of the leaves.

California SINCE 1909
GARDEN

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1985–Present	Elizabeth B. GLOVER

Prune when the leaves and flowers are past their prime. This **Strelitzia** responds to fairly heavy fertilization, accompanied with plenty of water, and lots of sunshine along the coastal areas.

The flowers make a magnificent centerpiece for flower arrangements, and the leaves, too, are an attractive adjunct to a vase display. With good care, the cut flower display could last over a month. Our Eastern visitors are always intrigued by the exotic beauty of the Bird of Paradise.

Robert D. Horwitz is a retired aerospace engineer with a big garden. He recently donated a huge staghorn fern to Quail Gardens Botanical Garden.

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San Diego, CA 92120
4th Tues. Home of members, 9:30 a.m.

SAN DIEGO ASSOCIATION OF PROFESSIONAL HORTICULTURISTS
Pres: Tineke Wilders 294-8097
3511 Arizona Street
San Diego, CA 92104
4th Mon., Casa del Prado, Rm 104, 7:30 p.m.

SAN DIEGO BONSAI CLUB INC.
Pres: Mr. Wayne Chapman 755-4451
P.O. Box 40037
San Diego, CA 92104, 11 a.m. Workshop
2nd Sun., Casa del Prado, 1:00 p.m.

SAN DIEGO BOTANICAL GARDEN FOUNDATION
Dr. Herbert A. Markowitz 224-8552
876 Armada Terrace
San Diego, CA 92106

SAN DIEGO BROMELIAD SOCIETY
Pres: Tim O'Reilly 670-0830
10942 Sunray Place,
La Mesa, CA 92041
1st Thurs., Byzantine Catholic Church
2235 Galahad Road, Serra Mesa, 7:45 p.m.

SAN DIEGO CACTUS AND SUCCULENT SOCIETY
Pres: Chuck Adams (619) 530-2551
7305 Rock Canyon Drive, San Diego 92126
2nd Sat. Casa del Prado, 1:30 p.m.

SAN DIEGO CAMELLIA SOCIETY
Pres: Dean Turney 299-5418
631 W. Pennsylvania Ave.
San Diego, CA 92103
3rd Wed., Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY BRANCH NATIONAL FUCHSIA SOCIETY
Pres: Ted Garrett 753-2665
498 La Costa Avenue
Leucadia, CA 92024
2nd Thurs., Palmquist School
1999 California St., Oceanside 7:00 p.m.

SAN DIEGO COUNTY DAHLIA SOCIETY
Pres: Mr. Gerald Lohmann 279-5135
6616 Rockland Ave., San Diego, CA 92111
4th Tues. except Jul & Dec., Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY ORCHID SOCIETY
Pres: Genie Hammond 426-6831
1341 Park Drive
Chula Vista, CA 92011
1st Tues., Casa del Prado, 7:30 p.m.

SAN DIEGO EPIPHYLLUM SOCIETY
Pres: Sean Minogue 475-4478
808 Ethel Place
National City, CA 92050
2nd Wed., Casa del Prado, 7:30 p.m.

SAN DIEGO FERN SOCIETY
Pres: Bob Halley 272-1019
1714 Malden Street
San Diego, CA 92109
3rd Thurs., Casa del Prado, 7:30 p.m.

SAN DIEGO FUCHSIA & SHADE PLANT SOCIETY
Pres: Bill Simpson 420-6100
58 "I" Street
Chula Vista, CA 92010
2nd Mon., Casa del Prado, 7:30 p.m.

SAN DIEGO GERANIUM SOCIETY
Pres: Barbara Jolly 424-5659
1412 Tenth Street
Imperial Beach, CA 92032
2nd Tues., Casa del Prado, 7:30 p.m.

SAN DIEGO GESNERIAD SOCIETY
Pres: Denise Knobloch (619) 268-0610
3915 Argyle
San Diego, CA 92111
3rd Wed., St. David's Parish Hall
5050 Milton St. 7:30 p.m.

SAN DIEGO/IMPERIAL COUNTIES IRIS SOCIETY
Pres: Dorothy Driscoll 463-6700
6338 Lake Athabaska Place
San Diego, CA 92119

SAN DIEGO ROSE SOCIETY
Pres: Mrs. Miriam Yoder 942-0557
work — 295-2749
2615 Levante St., Carlsbad, CA 92009
3rd Mon. Oct thru Jun, Casa del Prado
7:30 p.m.

SAN MIGUEL BRANCH AMERICAN BEGONIA SOCIETY
Pres: Mrs. Toni Baker 582-7516
6475 50th Street, San Diego, CA 92120
1st Sat., Home of members 10 a.m.

SOGETSU SCHOOL OF IKEBANA
Pres: Mrs. Leroy Lahey 429-6198
2829 Flax Drive, San Diego, CA 92154

SOUTHWEST HEMEROCALLIS SOCIETY
Pres: Paul Strauss 453-1998
7887 Revelle Dr., La Jolla, CA 92037
1st Sat., Feb., Apr., Jun., Sep., Nov.
10 a.m. Quail Gardens Meeting Room
Quail Gardens Rd., Encinitas

SOUTHWEST JUDGES COUNCIL
Pres: Mrs. David W. Hoke 436-9462
335 Avenida de las Rosas
Encinitas, CA 92024
1st Wed., Casa del Prado, 10:00 a.m.

SUN HARBOR BRANCH NATIONAL FUCHSIA SOCIETY
Pres: Robert Matlock 423-0213
1333 New Chatel Drive
San Diego, CA 92154
4th Wed., Recreation Hall, Holy Trinity Church, 2083 Sunset Cliffs Blvd., Ocean Beach

THE VILLAGE GARDEN CLUB OF LA JOLLA
Pres: Mrs. Harley Cope 546-9047
8686 Cliffridge Ave., La Jolla, CA 92037
4th Thurs., Sep thru May 1:00 p.m.
La Jolla United Methodist Church
6063 La Jolla Blvd., La Jolla

THE VISTA GARDEN CLUB
Pres: Mrs. James McConnell
1268 Waxwing Drive
Vista, CA 92083-3045
1st Fri., at 222 Jefferson St., Vista Senior Service Center, 12 noon

PROFESSIONAL AFFILIATES

ARTISTIC PRUNING
Jim Stelluti 298-7641
1928 Madison Avenue
San Diego, CA 92116

CALIFORNIA HORTICULTURAL INSTITUTE
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HORTICULTURIST, LECTURER, AUTHOR
Bettie L. Furuta
(619) 723-8678
2055 Rice Canyon Rd.
Fallbrook, CA 92028

HOUSE OF BODE
(916) 483-5977
Mr. and Mrs. William T. Bode
2800 Huntington Road
Sacramento, CA 95864

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San Diego, CA 92117 (619) 276-6016

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Cheryl Hedgpeth (619) 299-3010
2707 Congress St., Suite 1 H
San Diego, CA 92110

SUNSHINE GARDENING
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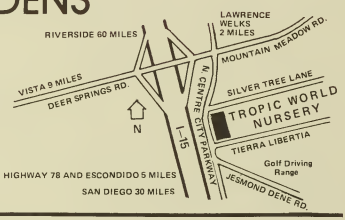

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9 A.M.–5 P.M.

- ROSES – 600 varieties
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(Includes number of varieties available)

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1 Boysenberry
1 Dewberry
1 Loganberry
6 Raspberry
1 Youngberry
4 Blueberries
3 Currants
1 Gooseberry
5 Kiwi
4 Strawberries

Grapes

22 Table Grapes
7 Wine Grapes

Nut Trees

10 Almonds
4 Chestnuts
3 Filberts
4 Macademias
10 Pecans
4 Pistachios
10 Walnuts

Deciduous Fruit Trees

27 Apples
13 Apricots
11 Cherry
3 Cherry Plum
1 Crabapple
19 Figs
2 Jujube
2 Mulberry
23 Nectarines
42 Peaches
1 Peachcot
15 Pears
20 Asian Pears
11 Persimmons
22 Plums
2 Plumcot
4 Prunes
4 Quince
4 Pomegranite

Evergreen/ Subtropical Fruit Trees

CITRUS
4 Grapefruits
2 Kumquat
1 Calamondin
5 Lemons
3 Limes
1 Limequat
6 Mandarins
8 Oranges
3 Oranges-Blood
1 Oranges-Sour
2 Pummelo
2 Tangelos
Others citrus carried as available

12 Avocado
10 Bananas
5 Cherimoyas
10 Guavas
1 Kaffir Plum
3 Loquats
2 Papayas
1 Rose Apple
1 Sapote
4 Tropical Cherries

Miscellaneous

2 Cacti (hundreds of others)
3 Passion fruit
1 Carob
1 Kei apple
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